

REMARKS

This amendment is in response to a non-final Office action (Paper No. 0) mailed 20 October 2004. Claims 1-12 and 23-44 will be pending in this application. Applicant has amended claim 25 by this amendment and has newly added claims 37 through 44 by this amendment.

In paragraph 1 of the October 20 Office action, the Examiner objected to the specification because the Cross Reference to Related Application section did not indicate that 09/835,348 had issued as USP 6,649,074. Applicant has amended the specification by this amendment to reflect the issuance of USP 6,649,074.

In paragraph 1 of the October 20 Office action, the Examiner objected to claim 25 for a misspelling of the word resistor on line 9. Applicant has amended claim 25 by this amendment to correct for this error.

In paragraph 2 of the October 20 Office action, the Examiner indicated that the Declaration is defective and in violation of 37 CFR 1.67 (a) for the specification to which the Declaration is directed has not been adequately identified. The objection is traversed for the following reasons.

The present application 10/663,796 is a divisional of 09/835,348. Therefore, on the filing date of 10/663,796 (September 17, 2003), Applicant submitted a copy of the originally signed Declaration filed with 09/835,348 on April 17, 2001. On the Declaration, it clearly states, "the

specification of which either is attached hereto or otherwise accompanies this Declaration, or:...".

Since Applicant submitted the Declaration with the application on April 17, 2001, the U.S. filing date of parent 09/835,348, the Declaration was properly submitted to the USPTO. Attached is a copy of the Declaration filed on April 17, 2001 along with the Transmittal of Declaration cover letter and the stamped postcard receipt showing that the Declaration, Transmittal of Declaration cover letter and the specification were all filed together on April 17, 2001, evidencing the filing of the Declaration with the application papers in the parent application. Accordingly, these documents are proof that Applicant's Declaration clearly identifies which specification the Declaration is referring to and that Applicant's Declaration as filed does indeed comply with 37 CFR 1.67 (a).

In paragraph 3 of the October 20 Office action, the Examiner objected to the drawings for not showing the features of claim 27. Applicant has amended FIG. 4 and paragraph 0041 to overcome this objection. In particular, Applicant has amended FIG. 4 and paragraph 0041 to recite ink feed grooves 225 at edges of the substrate to supply ink from a container to the manifold.

In paragraphs 4 and 5 of the October 20 Office action, the Examiner has rejected claims 1-4, 8, 9, 12, 25, 29 and 30 under 35 U.S.C. 102 (b) as being anticipated by USP 6,019,457 to Silverbrook. In the rejection, the Examiner relies on FIG. 17 of Silverbrook '457 to reject these claims. Applicant has the following comments.

Regarding claim 1, Applicant claims "said manifold and the ink chamber...both being

formed as recesses in the top surface of the substrate”. In the October 20 Office action, the Examiner equates Applicant’s ink chamber with reference numeral 115, the thermal chamber, in Silverbrook ‘457. Also, the Examiner equates Applicant’s manifold with reference numeral 114, the channel in Silverbrook ‘457 and Applicant’s substrate as reference numeral 130 in Silverbrook ‘457. Then, the Examiner asserts that FIG. 17 of Silverbrook ‘457 shows both the manifold and the ink chamber being formed in recesses in a top surface of the substrate. Applicant disagrees. Applicant submits that channel 114 of FIG. 17 of Silverbrook ‘457 is not a recess in the top surface in substrate 130. Applicant submits that channel 114 of FIG. 17 of Silverbrook ‘457 is formed underneath both the thermal chamber 115 and underneath the nozzle barrel 113, making it impossible for channel 114 to be formed in the top surface of the substrate along with the thermal chamber 115. Also, channel 114 of FIG. 17 of Silverbrook ‘457 is no where near the top surface of substrate 130. Therefore, Applicant submits that channel 114 is not formed in the top surface of substrate 130 as asserted by the Examiner in the October 20 Office action. Thus, the rejection to claim 1 must be withdrawn.

In contradistinction, FIG. 5 of Applicant’s patent application clearly shows manifold 210, like ink chamber 200, being formed as a recess in the top surface of the substrate 100. Unlike FIG. 17 of Silverbrook ‘457, Applicant’s manifold 210 is not underneath but side by side with the ink chamber 200 on the top of the substrate 100. This is an essential feature of Applicant’s ink printhead design that is not contemplated by the applied prior art. Therefore, Applicant submits that the applied prior art fails to teach or suggest both the ink chamber and the manifold being formed on a single top surface of the substrate.

Regarding claim 3, Applicant claims an ink channel disposed in the top surface of the substrate. In other words, Applicant is claiming in claim 3 that each of the ink channel 220, the manifold 210 and the ink chamber 200 are all formed on the same top surface of the substrate 100 as illustrated in Applicant's FIG. 5. In the October 20 Office action, the Examiner equates Applicant's ink channel 220 with nozzle barrel 113 in FIG. 17 of Silverbrook '457. In the October 20 Office action, the Examiner states that the nozzle barrel 113 of FIG. 17 of Silverbrook '457 is disposed in the top surface of the substrate. Applicant disagrees. Applicant submits that nozzle barrel 113 of FIG. 17 of Silverbrook '457 is formed a far way from the top surface of the substrate 130. Nozzle barrel 113 is shown as being below the thermal chamber 115 and above channel 114 and thus cannot be on the top surface of the substrate.

Regarding Applicant's claim 4, Applicant claims said ink chamber being formed deeper in said top surface of said substrate than the ink channel". In the October 20 Office action, the Examiner indicates that this feature is present in Silverbrook '457. Applicant disagrees.

In the October 20 Office action, the Examiner equates Applicant's ink chamber 200 with reference numeral 115, the thermal chamber, in Silverbrook '457 and Applicant's ink channel 220 with nozzle barrel 113 of Silverbrook '457. However, as is clearly seen in FIG. 17 of Silverbrook '457, the thermal chamber 115 is not formed deeper in substrate 130 than the nozzle barrel 113. This is because 1) nozzle barrel 113 is not formed in the top surface of the substrate 130 but beneath the thermal chamber 115. Also 2) the nozzle barrel 113 is deeper into substrate 130 than is thermal

chamber 115, making FIG. 17 of Silverbrook '457 opposite to what Applicant claims in claim 4. In claim 4, Applicant claims that ink chamber 200 is formed deeper in the top surface of substrate 100 than ink channel 220 as is readily seen in Applicant's FIG. 5. Therefore, it is not possible that Silverbrook '457 can teach Applicant's claim 4.

Regarding Applicant's claim 25, Applicant claims that both the ink supply path and a plurality of ink chambers being formed in the same "one surface" of the substrate. As in the rejection of claim 1, the Examiner relies on FIG. 17 of Silverbrook '457 to reject these features. Applicant disagrees for similar reasons as in the rejection of claim 1. Applicant submits that neither the nozzle barrel 113 nor the channel 114 of FIG. 17 of Silverbrook '457 are formed in the same one surface of the substrate as the thermal chamber 115. This can be seen by consulting with Applicant's FIG. 5 which shows each of the ink chamber 200, the ink channel 220 and the manifold 210 being formed in the same one surface of substrate 100. Applicant submits that there is no comparable structure in Silverbrook '457. Instead, in Silverbrook '457, the thermal chamber 115, the nozzle barrel 113 and the channel 114 are formed on top of each other instead of side by side on one surface of a substrate. Therefore, Applicant submits that Silverbrook '457 cannot meet the limitations of Applicant's claim 25.

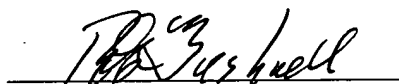
Applicant has newly added depending claims 37 through 44 by this amendment. These claims claim, in alternate language, the feature that the ink chamber and the manifold and the ink channel are all being formed in the top surface of the substrate. Entry of and favorable examination

of these claims is respectfully requested.

A fee of \$400 is incurred by the addition of eight (8) more claims in excess of 20. Applicant's check drawn to the order of Commissioner accompanies this Response. Should the check become lost, be deficient in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

In view of the above, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Reconsideration of the rejections and objections is requested. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

Respectfully submitted,



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